

## CLAIMS

1. A rescue boat, comprising:
  - a) a hull having an upper deck area that includes bow and stern areas, a port side and a starboard side;
  - 5        b) a pilot house mounted to the hull and extending above the upper deck area amidships;
  - c) the pilot house having pilot house deck, a front, a rear, and side portions and a pilot house length measured from the front to the rear;
  - d) a pair of rescue wells that are recesses in the hull below the deck and  
10       inside of the hull port and starboard sides, each rescue well having a length;
  - e) wherein a majority of the length of each rescue well is in front of the rear of the pilot house; and
  - f) a propulsion system for propelling the hull.
- 15       2. The rescue boat of claim 1 wherein the rescue wells are each in front of the deck stern area.
3. The rescue boat of claim 1 wherein the pilot house has multiple seating positions including at least port and starboard positions.
4. The rescue boat of claim 3 wherein the rescue wells extend in front of and behind the seating positions.
- 20       5. The rescue boat of claim 1 wherein the pilot house provides a line of sight to a pilot that occupies one of the seating positions that enables the pilot to see the water in front of the hull a distance that is less than the length of the hull.
6. The rescue boat of claim 1 wherein the stern deck area provides an enlarged unobstructed loading zone that enables a helicopter to airlift a cable hoisted  
25       package from the loading zone using a cable hoist on the helicopter.
7. The rescue boat of claim 1 wherein the boat carries a litter and the litter can be fitted into multiple areas on the hull including at least one of a pilot house deck, a passenger compartment, and a stern deck area.
8. The rescue boat of claim 1 wherein the pilot house is sized and shaped to  
30       fit a litter in between the seating positions.

9. The rescue boat of claim 1 further comprising a cabin having a cabin deck that is below the pilot house deck.
10. The rescue boat of claim 9 wherein the cabin deck is in front of the pilot house deck.
- 5 11. The rescue boat of claim 8 wherein cabin is sized and shaped to receive the litter.
12. The rescue boat of claim 1 further comprising a trailer that carries the hull.
- 10 13. The rescue boat of claim 12 wherein the pilot house has roof and the overall height of trailer and hull to the roof when the hull is carried by the trailer is less than 13.5 feet (4.11 m).
14. The rescue boat of claim 1 further comprising an enlarged foam fender system that is attached to the hull next to the deck and that contributes at least one ton (0.907 metric tons) of positive buoyancy should the hull become submerged.
- 15 15. The rescue boat of claim 1 wherein the hull has a transom and a constant deadrise in between the transom and the front of the pilot house.
16. The rescue boat of claim 1 wherein the propulsion system is positioned above the bottom of the hull.
- 20 17. The rescue boat of claim 1 wherein the propulsion system does not have an exposed propeller.
18. The rescue boat of claim 17 wherein the propulsion system includes two propulsion units.
- 25 19. The rescue boat of claim 16 further comprising a fan tail on the hull that extends over the propulsion units.
20. The rescue boat of Figure 18 further comprising a buoyancy chamber in between the propulsion units and that extends behind the transom.
21. The rescue boat of 15 further comprising multiple buoyancy chambers behind the transom.
- 30 22. The rescue boat of claim 1 further comprising a fan tail on the hull that extends above at least a part of the propulsion system.

23. The rescue boat of claim 22 further comprising a hoist mounted to the fan tail for lifting at least a part of the propulsion system.

24. A rescue boat, comprising:

5 a) a hull having an upper deck area that includes bow and stern areas, a port side, a starboard side, a transom, and a fan tail extending behind the transom;

b) a pilot house mounted to the hull and extending above the upper deck area amidships;

c) a propulsion system for propelling the hull, and including one or more water jet unites that extend behind the transom; and

10 d) multiple buoyancy chambers extending between the fan tail and transom.

25. The rescue boat of claim 24, further comprising a plurality of rescue wells being located in front of the deck stern area.

26. The rescue boat of claim 24 wherein a pilot house is mounted upon the deck that has multiple seating positions.

15 27. The rescue boat of claim 25 wherein the rescue wells extend in front of and behind the seating positions.

28. The rescue boat of claim 26 wherein the pilot house provides a line of sight to a pilot that occupies one of the seating positions that enables the pilot to see the water in front of the hull a distance that is less than the length of the hull.

20 29. The rescue boat of claim 24 wherein the stern deck area provides an enlarged unobstructed loading zone that enables a helicopter to airlift a cable hoisted stretcher from the loading zone using a cable hoist on the helicopter.

25 30. The rescue boat of claim 24 wherein the boat carries a litter and the litter can be fitted into multiple areas on the hull including at least one of a pilot house deck, a passenger compartment, and a stern deck area.

31. The rescue boat of claim 24 wherein the pilot house is sized and shaped to fit a litter in between the seating positions.

32. The rescue boat of claim 24 further comprising a cabin having a cabin deck that is below the pilot house deck.

30 33. The rescue boat of claim 32 wherein the cabin deck is in front of the pilot house deck.

34. The rescue boat of claim 32 wherein cabin is sized and shaped to received the litter.
35. The rescue boat of claim 24 further comprising a trailer that carries the hull.
- 5           36. The rescue boat of claim 35 wherein the pilot house has roof and the overall height of trailer and hull to the roof when the hull is carried by the trailer is less than 13.5 feet (4.11 m).
- 10           37. The rescue boat of claim 24 further comprising an enlarged foam bumper that is attached to the hull next to the deck and that contributes at least one ton (0.907 metric tons) of positive buoyancy should the hull become submerged.
38. The rescue boat of claim 24 wherein the hull has a transom and a constant deadrise in between the transom and the front of the pilot house.
39. The rescue boat of claim 24 wherein the propulsion system is positioned above the bottom of the hull.
- 15           40. The rescue boat of claim 24 wherein the propulsion system does not have an exposed propeller.
41. The rescue boat of claim 24 wherein the propulsion system includes two propulsion units.
42. The rescue boat of claim 37 further comprising a fan tail on the hull that extends over the propulsion units.
- 20           43. The rescue boat of claim 37 further comprising a buoyancy chamber in between the propulsion units and that extends behind the transom.
44. The rescue boat of claim 37 further comprising multiple buoyancy chambers that each extend behind the transom.
- 25           45. The rescue boat of claim 24 further comprising a fan tail on the hull that extends above at least a part of the propulsion system.
46. The rescue boat of claim 45 further comprising a hoist mounted to the fan tail for lifting at least a part of the propulsion system.
- 30           47. The rescue boat of claims 14 or 37 wherein multiple flush fittings are provided in the hull side that enable the hull to be tied to a trailer without damaging the fender system.

48. The rescue boat of claims 14 or 37 wherein multiple lifting fittings are provided on the deck that enable the hull to be hoisted without damaging the fender system.
- 5 49. The rescue boat of claim 1 wherein the hull is a constant dead rise hull over a majority of its length.
50. The rescue boat of claim 1 further comprising spray rails on the hull.
51. The rescue boat of claim 1 further comprising yaw stabilizing skegs located within the hull profile.
- 10 52. The rescue boat of claim 1 further comprising a high strength towing post positioned at the hull stern.
53. The rescue boat of claim 1 wherein the pilot house provides multiple dynamic energy absorbent seating.
54. The rescue boat of claim 1 further comprising multiple engine hatches that allow fresh air and natural lighting into the engine room for dockside maintenance.
- 15 55. The rescue boat of claim 1 wherein there are multiple locations for weather protected carriage of litter-borne injured person or persons.
56. The rescue boat of claim 1 further comprising a pump for auxiliary bilge suction and off-board fire fighting.
- 20 57. The rescue boat of claim 24 wherein the hull is a constant dead rise hull over a majority of its length.
58. The rescue boat of claim 24 further comprising spray rails on the hull.
59. The rescue boat of claim 24 further comprising yaw stabilizing skegs located within the hull profile.
- 25 60. The rescue boat of claim 24 further comprising a high strength towing post positioned at the hull stern.
61. The rescue boat of claim 24 wherein the pilot house provides multiple dynamic energy absorbent seating.
- 30 62. The rescue boat of claim 24 further comprising multiple engine hatches that allow fresh air and natural lighting into the engine room for dockside maintenance.

63. The rescue boat of claim 24 wherein there are multiple locations for weather protected carriage of litter-borne injured person or persons.

64. The rescue boat of claim 24 further comprising a pump for auxiliary bilge suction and off-board fire fighting.